

**REMARKS**

Applicants have amended the drawings, the specification, and claims 1, 2, 4, and 5 and added new claims 6-17. No new matter has been entered by way of these amendments. In view of these amendments and the following remarks, Applicants hereby request further examination and reconsideration of the application, and allowance of claims 1-17.

The Office has objected to the specification asserting that page numbers and title are missing, the reference A-A should be changed to 5-5 on the second page, line 10, "enought" on page 3, line 16 is misspelled, reference numeral 14 has been used to designate spring contacts and cantilevered beam, and the phrase, "What we claim is" should be moved to the next page. Accordingly, as set forth in the amendments above, Applicants have added page numbers and a title, corrected the spelling of "enough" to "enough", made the designation of reference numeral 14 consistent, and corrected the location of the heading for the claims section. No new matter has been entered by way of these amendments. In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw its objection to the specification.

The Office has objected to the drawings asserting that in FIG. 2, "A-A" should be changed to --5-5-- and in FIG. 5 and that the reference arrow without a numerical reference should be deleted. Accordingly, Applicants have changed "A-A" to --5-5-- in FIG. 2 and have deleted the reference arrow in Fig. 5. No new matter has been entered by way of these amendments. In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw its objection to the drawings.

The Office has objected to informalities in claims 1-5. Specifically, the Office asserts that "having:" on line 4 of claim 1 should be change to "having;," there is no antecedent basis for "the mating pin and socket contacts" on lines 6-7 of claim 1, the phrase "upon disconnection of the mating pin and socket contacts" on lines 6-7 of claim 1 is unclear, and "contactitself" on line 3 of claim 5 should be "contact itself". Accordingly, as set forth above, Applicants have deleted, the phrases, "having:" and "upon disconnection of the mating pin and socket contacts" from claim 1 and have amended claim 5 in accordance with

the Office's suggestion. In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw its objection to the claims.

The Office has rejected claims 1-5 under 35 U.S.C. §112, second paragraph, asserting that "a pin contact engaging surface positioned at a maximum distance from the socket contact bore axis that is greater than the maximum transverse dimension of the pin contact" in claim 1 is unclear and indefinite because "the maximum distance from a pin contacting engaging surface to a socket contact bore axis is only half distance of a diameter of the socket bore and it should not be greater than the maximum transverse dimension of a pin contact." Accordingly, as set forth above Applicants have amended claim 1 to clarify the positional relationship of the arc receiving elements. Support for this amendment can be found on page 3 of the specification. No new matter has been added by way of these amendments. In view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw this rejection of the claims.

The Office has rejected claims 1 and 3-5 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,681,190 to Childs ("Childs"), and has rejected claim 2 under 35 U.S.C. 103(a) as being unpatentable over Childs in view of U.S. Patent No. 4,272,149 to Gallusser et al. (Gallusser). The Office asserts that Childs discloses an electrical socket contact (element 10 in figure 4) for mating with a pin contact (element 34 in figure 1) with an electrically conductive barrel body (figure 4) having a pin contact engaging axial bore along a socket contact axis (element 26). The Office also asserts that in Childs the two forward edge portions (elements 50 in figure 2) which are integrally formed, pin contact arc receiving elements and that two flexible tabs (elements 40, 41 in figure 2) are a plurality of integrally formed, cantilevered spring contacts. Further, the Office asserts that in Childs the pin contact arc receiving elements having a pin contact engaging surface position (element 58) at a maximum distance from the socket contact axis that is greater than the maximum transverse dimension of the pin contact.

Neither Childs nor Gallusser, alone or in combination, disclose or suggest, "wherein the arc receiving elements are spaced apart across the bore a distance that is greater than a maximum transverse dimension of the pin contact as recited in claim 1. The Office's attention is respectfully directed to FIG. 5 and col. 7, lines 66-67 in Childs, which illustrates

and states that the blade terminal 120 has a thickness greater than the distance between domes 58 and 68. The Office's attention is also respectfully directed to col. 3, lines 15-21 in Childs which states, "The two opposed pairs of tabs produce four independent, vertically offset contact points which are formed on individually cantilevered, flexible tabs which can adapt to imperfections or misalignments in the blade terminal and which can thereby provide reliable contact and multiple current paths between the receptacle and the terminal. Further, as discussed at col. 9, lines 12-13 in Childs, the blade terminal 120 can be accommodated by the flexibility of the cantilevered tabs 40, 41, 80, and 81. Accordingly, in Childs the distance between the tabs is less than the transverse distance of the blade terminal, not greater so that a connection can be formed. Like Childs, Gallusser also does not teach or suggest the invention as claimed.

In contrast, as disclosed at page 3, lines 5-8 in the above-identified patent application, the arc receiving elements are spaced across the bore of the socket contact at a distance which is greater than the maximum transverse distance of the male pin contact. The spacing can be used because the arc receiving elements are not used to form an electrical connection between the pin contact and the socket contact. Instead, as disclosed at page 3, lines 7-12 in the above-identified patent application, the arc receiving elements 12 function as "sacrificial" elements while the fully mated male/female electrical contact is established by a plurality of integrally formed spring contacts which maintain their electrical and physical integrity because of the arc receiving elements. Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claim 1. Since claims 2-4 depend from and contain the limitations of claim 1, they are distinguishable over the cited references and are patentable in the same manner as claim 1.

Additionally, Childs and Gallusser, alone or in combination, do not disclose or suggest, "at least two pin contact arc receiving elements which extend in to the bore," as recited in claim 1 or "wherein the arc receiving elements are fixed, non-cantilevered, arc receiving elements" as recited in new claim 7. Contrary to the Office's assertions, the segments 50 in Childs are not pin contact arc receiving elements. Instead, the flexible tab 50 with convex dome 58 is a contact point for the connection. The Office's attention is respectfully directed to col. 2, lines 60-63 in Childs which states, "Each of the four flexible

tabs incorporates a pressed convex dome which extends inwardly toward the receptacle axis, and which serves as a contact point between the receptacle and the blade terminal.”

Additionally, the Office’s attention is respectfully directed to col. 3, lines 15-21 in Childs which state, “The two opposed pairs of tabs produce four independent, vertically offset contact points which are formed on individually cantilevered, flexible tabs which can adapt to imperfections or misalignments in the blade terminal and which can thereby provide reliable contact and multiple current paths between the receptacle and the terminal. Nowhere in Childs is there any teaching or suggestion that tabs 50 are sacrificial, arc receiving elements as opposed to contact points. Further, as set forth at col. 3, lines 15-21 and col. 9, lines 12-13 in Childs, the blade terminal 120 is accommodated by the flexibility of the cantilevered tabs 40, 41, 80, and 81. The tabs in Childs are flexible so that they can adapt to imperfections or misalignments of the blade terminal and form an electrical connection. Childs does not teach or suggest a fixed, non-cantilevered arc receiving element because the tabs 50 need to be flexible to form a reliable connections. Like Childs Gallusser also does not teach or suggest the invention as claimed.

In contrast, as disclosed at page 3, lines 7-12 in the above-identified patent application, the present invention provides a configuration where the arc receiving elements 12 function as “sacrificial” elements while the fully mated male/female electrical contact is established by a plurality spring contacts which maintain their electrical and physical integrity because of the arc receiving elements. The present invention provides the benefit of having fixed sacrificial elements which absorb any arcing damage while having spring contacts which provide the reliable electrical connection. Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claim 1. Since claims 2-4 depend from and contain the limitations of claim 1, they are distinguishable over the cited references and are patentable in the same manner as claim 1.

Applicants have also added new claims 6-17 which are also believed to be distinguishable over the cited references and in condition for allowance. A notice to this effect is respectfully requested.

In view of all of the foregoing, it is submitted that this case is in condition for allowance and such allowance is earnestly solicited. In the event that there are any outstanding matters remaining in the above-identified application, the Office is invited to contact the undersigned to discuss this application.

Respectfully submitted,

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# REPLACEMENT SHEET

